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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,494	04/19/2004	Ken Xiao Kang Zhang	S63.2-11346-US01	3474

490 7590 04/18/2007

VIDAS, ARRETT & STEINKRAUS, P.A.
6109 BLUE CIRCLE DRIVE
SUITE 2000
MINNETONKA, MN 55343-9185

EXAMINER	
HUSON, MONICA ANNE	
ART UNIT	**PAPER NUMBER**
1732	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/827,494	ZHANG ET AL.	
	Examiner	Art Unit	
	Monica A. Huson	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *1-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *080204,101105,092706*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-16, drawn to a mold, classified in class 425, subclass 522+.

II. Claims 17-21, drawn to a method of molding, classified in class 264, subclass 535.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process, such as one that does not require immersing the mold in a heated fluid.

During a telephone conversation with Walter Steinkraus on 9 April 2007 a provisional election was made without oral traverse to prosecute the invention of Group II, claims 17-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahoney et al. (U.S. Patent 6,863,856). Regarding Claim 17, Mahoney et al., hereafter "Mahoney," show that it is known to carry out a method of forming a medical device (Abstract) comprising the steps of placing a parison in a mold having a cavity with a wall form substantially conforming to the desired shape of said device (Column 6, lines 17-19); immersing the mold in a heated fluid to heat the parison (Column 6, lines 23-35; it is being interpreted that when the mold is heated by the hot air nozzle, it will be immersed in an area of heated fluid (i.e. air)); pressurizing the parison to radially expand the parison to contact the walls of the mold cavity (Column 6, lines 51-54), wherein the mold cavity wall contains at least one through-hole therein through which the heated fluid enters the mold cavity to directly contact the parison when the mold is immersed in the heated fluid and through which heated fluid that has entered the mold cavity is expelled therefrom when the parison is radially expanded (Column 6, lines 30-35).

Regarding Claim 20, Mahoney shows the process as claimed as discussed in the rejection of Claim 17 above, including a method wherein the mold cavity wall contains a plurality of said through-holes therein (Figure 1, element 11).

Claims 17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Leonhardt (U.S. Patent 5,522,961). Regarding Claim 17,

Leonhardt shows that it is known to carry out a method of forming a medical device (Abstract) comprising the steps of placing a parison in a mold having a cavity with a wall form substantially conforming to the desired shape of said device (Column 2, lines 41-43); immersing the mold in a heated fluid to heat the parison (Column 2, lines 43-45); pressurizing the parison to radially expand the parison to contact the walls of the mold cavity (Column 2, lines 47-51), wherein the mold cavity wall contains at least one through-hole therein through which the heated fluid enters the mold cavity to directly contact the parison when the mold is immersed in the heated fluid and through which heated fluid that has entered the mold cavity is expelled therefrom when the parison is radially expanded (Column 3, lines 60-64).

Regarding Claim 20, Leonhardt shows the process as claimed as discussed in the rejection of Claim 17 above, including a method wherein the mold cavity wall contains a plurality of said through-holes therein (Figure 2, element 46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonhardt, in view of Gass-Erb (U.S. Patent 3,766,358).

Regarding Claim 18, Leonhardt shows the process as claimed as discussed in the rejection of Claim 17 above, but he does not show agitating the fluid while the mold is immersed therein. Gass-Erb shows that it is known to carry out a method including a step comprising agitating a heated fluid while

an object is immersed therein (Column 7, lines 32-35). Gass-Erb and Leonhardt are combinable because they are concerned with a similar technical field, namely, methods of heating objects using immersion techniques. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gass-Erb's agitated heating bath in Leonhardt's molding process in order to provide equal temperature distribution throughout the heating fluid (See Gass-Erb, Column 1, lines 50-54).

Regarding Claim 21, Leonhardt shows that it is known to carry out a method of blowing a balloon (Abstract) by immersing a mold containing a hollow parison of thermoplastic polymer material into a heated fluid and pressurizing the parison (Column 2, lines 41-45, 47-51). Leonhardt does not show agitating the fluid while the mold is immersed therein. Gass-Erb shows that it is known to carry out a method including a step comprising agitating a heated fluid while an object is immersed therein (Column 7, lines 32-35). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gass-Erb's agitated heating bath in Leonhardt's molding process in order to provide equal temperature distribution throughout the heating fluid (See Gass-Erb, Column 1, lines 50-54).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leonhardt, in view of Garrett (U.S. Patent 6,073,540). Leonhardt shows the process as claimed as discussed in the rejection of Claim 17 above, but he does not show vibrating the molding apparatus while the mold is immersed in the heated fluid. Garrett shows that it is known to carry out a method including vibrating the article while it is immersed in the heated fluid (Column 3, lines 1-8). Garrett and Leonhardt are combinable because they are concerned with a similar technical field, namely, methods of heating objects using fluid. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Garrett's article vibration technique during

Leonhardt's molding process in order to effect more uniform heat transfer (See Garrett, Column 3, lines 6-7).

Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahoney, in view of Gass-Erb.

Regarding Claim 18, Mahoney shows the process as claimed as discussed in the rejection of Claim 17 above, but he does not show agitating the fluid while the mold is immersed therein. Gass-Erb shows that it is known to carry out a method including a step comprising agitating a heated fluid while an object is immersed therein (Column 7, lines 32-35). Gass-Erb and Mahoney are combinable because they are concerned with a similar technical field, namely, methods of heating objects using immersion techniques. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gass-Erb's agitated heating bath in Mahoney's molding process in order to provide equal temperature distribution throughout the heating fluid (See Gass-Erb, Column 1, lines 50-54).

Regarding Claim 21, Mahoney shows that it is known to carry out a method of blowing a balloon (Abstract) by immersing a mold containing a hollow parison of thermoplastic polymer material into a heated fluid and pressurizing the parison (Column 6, lines 17-19, 23-25, 30-35, 51-54). Mahoney does not show agitating the fluid while the mold is immersed therein. Gass-Erb shows that it is known to carry out a method including a step comprising agitating a heated fluid while an object is immersed therein (Column 7, lines 32-35). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gass-Erb's agitated heating bath in Mahoney's molding process in order to provide equal temperature distribution throughout the heating fluid (See Gass-Erb, Column 1, lines 50-54).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahoney, in view of Garrett. Mahoney shows the process as claimed as discussed in the rejection of Claim 17 above, but he does not show vibrating the molding apparatus while the mold is immersed in the heated fluid. Garrett shows that it is known to carry out a method including vibrating the article while it is immersed in the heated fluid (Column 3, lines 1-8). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Garrett's article vibration technique during Mahoney's molding process in order to effect more uniform heat transfer (See Garrett, Column 3, lines 6-7).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica A Huson

Monica A Huson
April 10, 2007